FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water **Program #4500: Surface Water Regulation**
Objective #3: Reduce pollutant loading to surface water.

TASK/ GRANT	OUTPUT DESCRIPTION	EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL	RESPONSIBLE SECTION/ STAFF
1.3.5	**TASK: Surface Water Program Development** Perform program development support activities for surface water program including development of program procedures and policies. **DELIVERABLES:**		
NPS XI	1) Update-implementation procedures for: a) Narrative nutrients in lakes and reservoirs b) Narrative bottom deposits c) Narrative biocriterion. d) Antidegradation	T = 6/10 **Comments**	Surface Water
PPG	2) Draft implementation procedures for: a) Methylmercury in fish tissue b) Narrative toxics standard	T a) 12/09 **Comments** b) 6/10 **Comments**	Surface Water
	3) Develop narrative nutrient criteria workplan for streams and rivers.	T = 10/09 **Comments**	Surface Water
	4) Develop strategy and establish priorities for 2012 triennial review.	T = 06/10 **Comments**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable #1(a) through (d): ADEQ drafted narrative standard implementation procedures for the narrative nutrients standard for lakes and reservoirs, narrative bottom deposits, biocriteria and antidegradation in 2008. Revisions to the surface water quality standards rules related to narrative nutrients in lakes and reservoirs (R18-11-108.03), bottom deposits (R18-11-108.02), biocriteria (R18-11-108.01) and antidegradation (R18-11-107.01) were adopted by rule and became effective law at the state level on January 31, 2009. Narrative nutrients in lakes and reservoirs is being revised based on EPA's comments. Deliverable #2(a): Development of implementation procedures for the methyl mercury fish tissue criterion is off-target. This deliverable has been incorporated into the FY11 Workplan as Task 1.3.5.2(a). Revisions to the draft narrative toxics implementation procedures are on hold to evaluate new WET testing criteria. Deliverable #3: The development of a narrative nutrient criteria workplan for streams and rivers has not been met. Development of this deliverable has been delayed by the scientific and technical complexity of nutrient dynamics in rivers and streams, and significant budget and state resources constraints that have affected ADEQ data collection. Staff is reviewing nutrients and other data from our existing surface water quality database and performing some preliminary statistical analyses to determine if there are predictive relationships between excessive plant and algae growth and nutrient loading in streams and rivers. Deliverable #4: Meetings have been held to begin process for developing list of potential changes for 2012 Triennial review. Arizona remains under a rulemaking moratorium for FY11.

GOAL #1: Clean & Safe Water Objective #3: Reduce pollutant loading to surface water.		Program #4500: Surface Water Regulation	
TASK/ GRANT	**OUTPUT DESCRIPTION**	**EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL**	**RESPONSIBLE SECTION/ STAFF**
1.3.5	**TASK: Surface Water Program Development (Cont'd)** **DELIVERABLES:**		

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW) PPG	7.00	31,149
GFS (SW) NPS XI	6.00	22,314
WQARF	3.00	9,920
WQARF PPG	6.00	28,100
PPG	8.00	28,535
NPS Impl. XI	7.00	25,861
GFS-AZPDES (SW)	4.00	17,606
GFS (SW)	3.00	10,994
TOTAL	44.00	174,479

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water **Program #4500: Surface Water Regulation**
Objective #3: Reduce pollutant loading to surface water.

TASK/ GRANT	OUTPUT DESCRIPTION	EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL	RESPONSIBLE SECTION/ STAFF
1.3.6	**TASK: Ambient Monitoring Program** Ambient monitoring program, which includes rivers and streams, lakes and reservoirs, groundwater, and fish tissue and sediment sampling for priority pollutants. **DELIVERABLES:**		
PPG	1) Conduct ambient stream monitoring per FY 10 sampling and analysis plan. Monitoring to include targeted and probalistic basin characterization sites and planning list sites in support of 305(b) assessment process.	T = Quarterly **A = 4**	Surface Water/SRO
106 Mon	2) Prepare FY 11 sampling and analysis plan for rivers and streams	T = 5/10 **A = 5/10**	Surface Water
	3) Conduct ambient lake monitoring per FY 10 sampling and analysis plan. Monitoring to include watershed characterization and planning list sites in support of 305(b) water quality assessment process.	T =Quarterly **A = 3**	Surface Water
	4) Prepare FY 11 sampling and analysis plan for lakes and reservoirs	T =5/10 **A = 5/10**	Surface Water
	5) Prepare FY 10 sampling plan for fish tissue monitoring.	T = 9/09 **A = 2/10**	Surface Water
	6) Conduct fish tissue and sediment sampling program on Arizona lakes and reservoirs for presence of mercury-to support-fish consumption advisory programs.	T = Ongoing **DONE**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable 1: Only 94 of the 134 samples scheduled for FY10 were collected according to the sampling and analysis plan. Weather was a major factor this sampling year. Record snows and record floods prevented access to sites and roads for much of the sample period. Loss of 4 field staff made scheduling around the snow and flooding events problematic. Deliverable 3: The second quarter of sampling for Bear Canyon and Willow Springs lakes was missed due to snow and closed roads.

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water	Program #4500: Surface Water Regulation		
Objective #3: Reduce pollutant loading to surface water.			
TASK/ GRANT	**OUTPUT DESCRIPTION**	**EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL**	**RESPONSIBLE SECTION/ STAFF**
1.3.6	**TASK: Ambient Monitoring Program (Cont'd)** **DELIVERABLES:**		

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW)	12.00	51,789
GFS (SW) NPS XI	21.00	73,095
WQARF	4.92	16,268
WQARF PPG	12.00	39,679
WQARF NPS X	12.00	42,708
WQARF NPS XI	16.50	61,234
PPG	16.00	57,258
106 Monitoring	3.00	9,920
TOTAL	97.42	351,951

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water **Program #4500: Surface Water Regulation**
Objective #3: Reduce pollutant loading to surface water.

TASK/ GRANT	OUTPUT DESCRIPTION	EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL	RESPONSIBLE SECTION/ STAFF
1.3.7	**TASK: 106 Monitoring** Monitoring Initiative (MI) program for implementation of AZ approved comprehensive monitoring strategy. **DELIVERABLES:**		
106 Mon	1) Support monitoring personnel	T = 6/10 **DONE**	Surface Water
106 Mon-2	2) Monitoring Program Support a) Purchase field and monitoring equipment	T = **DONE** a) Ongoing thru 6/10	Surface Water
106 Mon-2	3) Physical integrity a) Inventory bank height ration, width depth ratio and Bank Erosion Hazard Index (BEHI) data at selected sites as outlined in ambient monitoring SAP (task 1.3.6 deliverable 1).	T = a) 6/10 **Comments**	Surface Water
106 Mon	4) Emerging contaminants a) Conduct monitoring according to SAP.	T = a) 6/10 **Comments**	Surface Water
106 Mon	5) Intermittent streams a) Conduct intermittent stream monitoring according to FY09 Sampling and Analysis Plan.	T = a) 6/10 **Comments**	Surface Water
106 Mon-2	6) Effluent dependent waters a) Conduct monitoring according to SAP for effluent dependent waters.	T = a) 6/10 **DONE**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable 3 has not been met. Project manager for this task retired on April 30, 2010 and duties were transferred to another staff member whose position was then eliminated through a reduction in force action in May, 2010. Geomorphology data was collected for 8 sites in FY10. The 6 to 8 sites that were scheduled to be sampled were missed due to lack of staff. We are currently trying to hire a contractor to complete this task. Deliverable 4 has not been met due to the cancellation of the state lab contract. State lab was ADEQ's main source for emerging contaminant analysis. Deliverable 5 has not been met because the project manager's position was eliminated through a reduction in force action in May, 2010. We were not able to collect flow, chemistry and macroinvertebrate data since May, 2010. A total of 22 out of 30 sites have been collected for FY11. We are currently trying to hire a contractor to complete this task.

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW)	6.00	25,834
106 Monitoring	9.00	33,531
106 Monitoring-2	12.00	43,450
TOTAL	27.00	102,815

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water Objective #3: Reduce pollutant loading to surface water.		Program #4500: Surface Water Regulation	
TASK/ GRANT	**OUTPUT DESCRIPTION**	**EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL**	**RESPONSIBLE SECTION/ STAFF**
1.3.8	**TASK: Water Quality Assessment** Development of water quality assessment documents (e.g. 305(b), 205(j) and processes). **DELIVERABLES:**		
PPG NPS XI	1) Submit Arizona's Integrated 305(b) Assessment and 303(d) Listing report to EPA.	T = 4/10 **Comments**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable #1 has not been met; all but one of the watersheds in AZ have had the initial assessment completed; formatting 305(b) assessment for Verde River watershed to use as template for others; internal review of 305(b) and 303(d) list will commence in Q1 FY11 with draft likely by end Q2 FY11.

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW)	3.00	6,880
GFS (SW) PPG	2.84	13,301
WQARF PPG	2.16	10,116
PPG	20.00	70,167
NPS Impl. XI	8.00	27,775
TOTAL	36.00	128,239

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water **Program #4500: Surface Water Regulation**
Objective #3: Reduce pollutant loading to surface water.

TASK/ GRANT	OUTPUT DESCRIPTION	EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL	RESPONSIBLE SECTION/ STAFF
1.3.9	**TASK: TMDL Analyses** Oversee Total Maximum Daily load (TMDL) efforts and conduct TMDLs and related analyses. **DELIVERABLES:**		
NPS XI PPG	1) a) Provide Quarterly TMDL Project Status Table updates on TMDL progress. b) Submit TMDL Reports to EPA for approval; complete 14 TMDLs on 12 waterbodies in FY 10. (See FY 10 Project Completion Status Table.	a) T = Quarterly **A = 4** b) T = 6/10 **Comments**	Surface Water
NPS X PPG	2) a) Continue collecting water quality data for TMDL development and provide status Table Updates each quarter. b) Monitor 23 TMDLs on 13 waterbodies (see FY 10 Continued Monitoring Status Table).	a) T = Quarterly **A = 4** T = 6/10 **Comments**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable 1b has not been met; 10 TMDLs are due to EPA by 9/10 and an additional 4 by 11/10. See table for updates. Deliverable 2b: See table for updates.

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW)	9.00	35,125
GFS (SW) NPS XI	23.56	86,409
WQARF	10.08	33,330
WQARF NPS X	32.80	120,399
PPG	32.80	120,399
NPS Impl XI	21.94	86,720
NPS Impl X	9.00	29,759
TOTAL	139.18	512,141

TMDL PROJECTS QUARTERLY STATUS
1.3.9 TMDL Development – Project Completion by June 2009

Segment	Impairment	Project Manager	Comments
Alamo Lake	Hg in Fish Tissue	stf	Approval 09/09 Q1- internal TMDL draft is under review Q2- recalculating TMDLs based trophic level basis per EPA guidance Q3- draft TMDL is under internal review Q4- TMDL is being revised based upon internal comments
Parker Canyon Lake	Hg in Fish Tissue	ld1	Approval 09/09 Q1- draft TMDL is under development Q2- no action on project due to recalc of other Hg TMDLs Q3- no action on this project Q4- no action on this project
Queen Creek- headwaters to Superior WWTP	Cu	kwp	Approval 09/09 Q1- data collection for SSS continues Q2- one sampling event occurred that filled several data gaps Q3- additional sampling occurred, awaiting lab results to verify NB concentrations Q4- lab results were received and incorporated into model
Queen Creek- Superior WWTP to Potts Canyon	Cu	kwp	Approval 09/09 Q1- data collection for SSS continues Q2- one sampling event occurred that filled several data gaps Q3- additional sampling occurred, awaiting lab results to verify NB concentrations Q4- lab results were received and incorporated into model
Oak Creek- Headwaters to West Fork Oak Creek	*E. coli*	js9	Approval 09/09 Q1- draft TMDL is under development Q2- TMDLs have been calculated, completing text Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Oak Creek- West Fork Oak Creek to tributary (345709/1114513)	*E. coli*	js9	Approval 09/09 Q1- draft TMDL is under development Q2- TMDLs have been calculated, completing text Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Oak Creek- Tributary (345709/1114513) to below SRSP	*E. coli*	js9	Approval 09/09 Q1- draft TMDL is under development Q2- TMDLs have been calculated, completing text Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23

Oak Creek- below SRSP to Dry Creek	*E. coli*	js9	Approval 09/09 Q1- draft TMDL is under development Q2- TMDLs have been calculated, completing text Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Oak Creek- Dry Creek to Spring Creek	*E. coli*	js9	Approval 09/09 Q1- draft TMDL is under development Q2- TMDLs have been calculated, completing text Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Alvord Lake	NH4	ds12	Approval 06/10 Q2- data analyses continued Q3- modeling approaches under review Q4- additional research into modeling approach
Cortez Lake	Low DO, high pH	ds12	Approval 06/10 Q2- data analyses continued Q3- modeling approaches under review Q4- additional research into modeling approach
Chaparral Lake	Low DO, *E. coli*	ds12	Approval 06/10 Q2- data analyses continued Q3- modeling approaches under review Q4- additional research into modeling approach
Lower Lake Mary	Hg in fish tissue	stf	Approval 8/09 Q1-draft TMDL under internal review prior to 30-day public notice Q2- recalculating TMDLs based trophic level basis per EPA guidance Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Lower Long Lake	Hg in fish tissue	stf	Approval 8/09 Q1-draft TMDL under internal review prior to 30-day public notice Q2- recalculating TMDLs based trophic level basis per EPA guidance Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Soldiers Lake	Hg in fish tissue	stf	Approval 8/09 Q1-draft TMDL under internal review prior to 30-day public notice Q2- recalculating TMDLs based trophic level basis per EPA guidance Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Soldiers Annex Lake	Hg in fish tissue	Stf	Approval 8/09 Q1-draft TMDL under internal review prior to 30-day public notice Q2- recalculating TMDLs based trophic level basis per EPA guidance

			Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Upper Lake Mary	Hg in fish tissue	Stf	Approval 8/09 Q1-draft TMDL under internal review prior to 30-day public notice Q2- recalculating TMDLs based trophic level basis per EPA guidance Q3- TMDL is under upper management review Q4- TMDL went to 30-day Public comment period June 23
Gila River-New Mexico border to Bitter Creek	Sediment, *E. coli*	dm4	Approval 7/09 Q1- *E. coli* TMDL is awaiting final internal approval fro 45- day AAR notice, draft SSC TMDL and response to comments under internal review prior to 45-day AAR notice Q2- redrafting TMDLs based on updated FMI Morenci permit status Q3- TMDL under internal review Q4- Draft TMDL completed, awaiting approval to release for 30-day public comment period
Gila River-Bonita Creek to Yuma Wash	Sediment, *E. coli*	Dm4	Approval 7/09 Q1- *E. coli* TMDL is awaiting final internal approval for 45- day AAR notice, draft SSC TMDL and response to comments under internal review prior to 45-day AAR notice Q2- redrafting TMDLs based on updated FMI Morenci permit status Q3- TMDL under internal review Q4- Draft TMDL completed awaiting approval to release for 30-day public comment period

1.3.9 TMDL Development- Continued Monitoring

Blue River-Strayhorse Creek to San Francisco River	*E. coli*	dm4	Q1- trained volunteer group on sample collected in support of targeted grant Q2- continued coordination with grantees Q3- continued coordination with grantees Q4- continued coordination with grantees
San Francisco River-Blue River to Limestone Gulch	*E. coli*	dm4	Q1- trained volunteer group on sample collected in support of targeted grant Q2- continued coordination with grantees Q3- continued coordination with grantees Q4- continued coordination with grantees
Crescent Lake	High pH	ds12	Q1- no action on this project Q2- one sampling event that coincided with previously measured exceedances Q3- no sampling activity on project Q4- no sampling activity on project
East Verde River-American Gulch to Verde River	As, B	kwp	Q1- continued SAP development Q2- coordinated sampling efforts with USGS Q3- additional samples collected by USGS Q4- additional samples collected by USGS
East Verde River-Ellison Creek to American Gulch	Se	kwp	Q1- continued SAP development Q2- coordinated sampling efforts with USGS Q3- additional samples collected by USGS Q4- no additional samples were collected
Little Colorado River-Silver Creek to Carr Wash	*E. coli*	dm4	Q1- additional storm samples needed Q2- TMDL development has begun additional samples will be collected Q3- additional sampling occurred Q4- TMDL calculations and draft report begun
Little Colorado River-Porter Tank to McDonalds Wash	Cu, Ag, SSC	dm4	Q1- data collection nearly complete Q2- TMDL development has begun, additional SSC will be collected, delist report for Cu and Ag drafted Q3- additional SSC samples were collected, awaiting analytical results Q4- TMDL calculations and draft report begun
Lyman Lake	Hg in fish tissue	ds12	Q1- poor monsoon produced insufficient runoff for sampling; additional storm runoff samples needed to complete sampling needed to support TMDL development Q2- additional storm/spring melt runoff will be collected, draft lake core report received from contractor Q3- no additional samples were collected; insufficient flows Q4- no additional samples, draft lake coring study reviewed
Santa Cruz River-Mexico Border to Nogales Inter WWTP	*E. coli*	cb9	Q1- loss of staff has resulted in development of this project being delayed Q2- no action on project Q3- no action on project Q4- no action on project

Nogales Wash-Mexico Border to Protrero Creek	*E. coli*, chlorine, ammonia, copper	cb9	Q1- loss of staff has resulted in development of this project being delayed Q2- no action on project Q3- no action on project
San Pedro River-Aravaipa Creek to Gila River	*E. coli*, Se	cb9	Q1- loss of staff has resulted in development of this project being delayed Q2- no action on project Q3- no action on project Q4- additional sediment sampling collected to determine potential sources of selenium
Watson Lake	Nitrogen, low D.O., high pH	Stf	Q1- poor monsoon produced insufficient runoff for sampling Q2- another sampling event occurred Q3- no action on project Q4- 1 additional sampling event occurred, trained volunteers for summer monitoring
Granite Creek-headwaters to Willow Creek	Low D.O.	Stf	Q1- poor monsoon produced insufficient runoff for sampling Q2- one runoff event was sampled Q3- additional sampling occurred as did coordination with Watershed Group (training and sampling) Q4- no additional samples collected

FY 10 4TH QUARTER OUTPUT REPORT

GOAL #1: Clean & Safe Water Objective #3: Reduce pollutant loading to surface water.		Program #4500: Surface Water Regulation	
TASK/ GRANT	**OUTPUT DESCRIPTION**	**EVALUATION, DATE OR QUANTITY T=TARGET A=ACTUAL**	**RESPONSIBLE SECTION/ STAFF**
1.3.10	**TASK: TMDL Implementation Plans & Effectiveness Monitoring Plan** Develop TMDL implementation plans in support of approved TMDL projects. **DELIVERABLES:**		
PPG	1) a) Update TMDL Implementation Plans Status Table each quarter. b) Complete 7 TIP plans.-(See TMDL Implementation Plans Status Table).	a) T = Quarterly **A = 4** b) 6/10 **Comments**	Surface Water
PPG	2) Conduct effectiveness monitoring. a) Monitor the effectiveness of remedial activities on 4 Performance Measure waterbodies in addition to 4 others in FY10. (See Effectiveness Monitoring Status Table.)	a) T = 6/10 **DONE**	Surface Water

OUTPUT REPORT COMMENTS

4TH QTR: Deliverable #1b has not been met; Several TIPs are off-target due to detailed or delayed TMDL development, others were included in the TMDL document themselves. See table for specific updates; Deliverable 2a: Effectiveness monitoring was conducted on several waterbodies where conditions warranted sampling; see table for specific updates.

FTE FUNDING SOURCE	MONTHS	AMOUNT
GFS (SW)	3.00	10,994
PPG	19.50	69,316
GFS (SW) NPS XI	4.50	18,791
TOTAL	27.00	99,101

FY10 –TMDL IMPLEMENTATION PLANS STATUS TABLE

Segment	Target Completion Date	Project Manager	Comments
Lake Mary Region	07/09	ks10	Q1-Awaiting completion of the TMDL document Q2- no action on project Q3- TMDL under review, TIP discussion to commence in Q4 Q4- brief TIP included in TMDL document
Alamo Lake	08/09	ks10	Q1-Awaiting completion of the TMDL document Q2- no action on project Q4- draft TMDL under review, TIP discussion to commence in Q4 Q4- brief TIP will be incorporated into draft TMDL document
Oak Creek	09/09	ks10	Q1-Awaiting completion of the TMDL document Q2- Brief Tip will be included in TMDL but targeted grant will develop a watershed improvement plan Q3- no additional TIP work other than continued WIP coordination Q4- brief TIP included in TMDL document, WIP will be drafted by watershed group
Queen Creek	11/09	ks10	Q2- off target, waiting for source ID and model completion Q3- no additional work on project Q4- no work on this project, awaiting final model results
Pinto Creek	01/10	ks10	Q3- TIP is on hold until TMDL draft is near completion Q4- no work on project
Urban Lakes	02/10	ks10	Q3- TIP is on hold until TMDL draft is near completion Q4- no work on project
Mule Gulch	06/10	ks10	Q4- no work on project

FY10 - EFFECTIVENESS MONITORING STATUS TABLE

Segment	Impairment	Project Manager	Comments
Alum Gulch	Cd, Cu, Zn, pH	sd4	Measure W Q1- several storm water samples were collected via autosamplers, awaiting results Q2- no action on project Q3- additional round of samples collected; exceedances still observed Q4- no additional samples collected
Boulder Creek	As, Cu, Zn	sd4	Measure W Q1- no action on project Q2- no action on project Q3- renewed interest from stakeholders and EPA R9, potential waiver for limiting 3rd party involvement was received Q4- continued coordination with EPA R9 and interested stakeholders to develop feasibility study
Pinto Creek	Cu	sd4	Measure W Q1- no action on project Q2- no action on project Q3- no sampling occurred; 319 grant application was received for capping Gibson mine Q4- no action on project

Turkey Creek	Cu, Pb	sd4	Measure W Q1- no action on project Q2- no action on project Q3- spring melt samples were collected and confirmed that these flows are not critical to loading Q4- additional passive sampler installation planned
Verde River	Turbidity	sd4	Q1- no action on project Q2- no action on project Q3- no action on project Q4- no action of project
Little Colorado River	Turbidity	sd4	Q1- no action on project Q2- no action on project Q3- no action on project Q4- additional sampling under spring melt occurred
San Pedro River – Babocomari Creek – Dragoon Wash	*E. coli*	sd4	Q1- meet with local stakeholders regarding targeted grant opportunity Q2- no action on project Q3- 319 grant application was received and reviewed Q4- no action on project
Sonoita Creek – from Patagonia WWTP to Patagonia Lake	Zn, low DO	sd4	Q1- no action on project Q2- no action on project Q3- no action on project Q4- no action on project

Performance Measure SP-12 (W) Updates: ***Improve water quality conditions in impaired watersheds nationwide using the watershed approach.***

Turkey Creek	Q1- poor monsoon season resulted in no samples being collected Q2- insufficient precipitation to produce runoff, special use permit submitted to USFS to install autosamplers below potential leads sources Q3- additional winter runoff samples were collected Q4- no additional samples were collected; additional passive sampling equipment was installed on remote tributaries below potential sources
Pinto Creek	Q1- poor monsoon season resulted in no samples being collected Q2- no action on project Q3- Franciscan Friars applied for a 319 to cap the Pinto Creek side of site, no additional sampling occurred Q4- no additional sampling occurred
Alum Gulch	Q1- autosamplers collected limited suite of storm runoff samples, awaiting lab results to compare to pre- remedial results Q2- no action on project, insufficient precipitation to produce runoff Q3- additional samples were collected from Alum Gulch and Humboldt Canyon plus small tributaries. Although impacts from World's Fair mine have been reduced the reaches continue to exceed WQ standards. Q4- no additional sampling occurred
Boulder Creek	Q1- no action on project, no movement has occurred on potential remedies Q2- no action on project Q3- briefed upper WQ management on issues with Hillside mine. A site visit is scheduled in early Q4 to tour the Hillside mine. Q4- continued coordination of potential funding of feasibility study to estimate costs of various remedial options; re-engaged the major stakeholders to inform them on progress.